

The following closing words of volume iv. are well worth quoting, since the issue of plates to illustrate the work was alone required to make it take its place as the standard authority on the British Mollusca. We trust that no pains will be spared in the execution of these drawings. The generic illustrations which have been published in the earlier volumes have in many instances fallen short of what they might have been; and even in the present volume, some of the engravings (for example, the figures of plate 7) are hardly worthy of that accurate artist, Mr. G. B. Sowerby:—

“And now, good reader, I should be sorry if you have complained of my being too voluminous. I never professed to make this a manual; nor have I yet quite done. Let me remind you of the advice given by Seneca (*De Ira*, lib. iii. c. 31. § 3), ‘Age potius gratias pro his quæ accepisti: reliqua expecta, et nondum plenum te esse gaude. Inter voluptates est, superesse quod speres.’

“The next volume will complete the work, and contain an account of the few remaining Pleurobranchiata, the Nudibranchs (by Mr. Alder), the marine Pulmonobranchs, the Pteropods, and the Cephalopods, a Supplement to the volumes already published, and other useful matter, besides plates (plain and coloured) by Mr. Sowerby, to represent all the species and remarkable varieties of British shells. Most of these plates are engraved, and the colouring is in progress.”

*Mind in Nature; or, the Origin of Life and the Mode of Development of Animals.* By HENRY JAMES-CLARK, A.B., B.S., Adjunct Professor of Zoology in Harvard University, Cambridge, Mass., &c. Illustrated; pp. v-315. D. Appleton & Co., New York. 1865.

THIS work has scarcely met with the attention, in this country, which it seems to deserve. It contains much interesting information respecting the lower animals, which is expressed in a clear and pleasing style.

*The Origin of Life* is considered in the first five chapters, in the course of which the author adduces some experiments in defence of the hypothesis of *spontaneous generation*, and propounds his theory of the egg,—viz. that it is a “bipolar animal,” . . . . “a globular accretion of two kinds of fluids, albumen and oil, which are always situated at opposite sides or poles,” and separated more or less distinctly from each other. Amongst the most remarkable modes by which an individual existence arises cited, is the derivation of vibrioform bodies from the fibres of decomposing muscular and tendinous tissue. His assertion, at page 101, that “human digestion makes human flesh out of the *decomposed* meat of many different kinds of animals,” requires some qualification, since the word *decomposition* is employed in the same paragraph somewhat in the sense of putrescence. The meaning of the word is wrested for the defence of spontaneous generation.

The speciality of the second part is his treatment of the Protozoa. “*The type of this division*,” he writes, “is found in its relation to

a spiral; it is the oblique or spiral type. . . . What characterize them all are not only the oblique relations of right and left, but also the presence of one or more peculiar contractile bodies, the so-called contractile vesicles, and a diffuse digestive system." He describes, in the ninth chapter, how the sinuses of the digestive cavity in certain Infusoria came to be described by Ehrenberg as saccules or pouches. In treating of the Mollusca, he agrees with Oken in regarding as the rudiment of a left valve, homologous with that of a Lamellibranch, the operculum of the operculated Gasteropods. At the same time he makes no allusion to the absence of correspondence between these two organs in respect of the relative periods of their formation. The Articulata are briefly touched upon in the twelfth chapter. He there shows some good reason for the promotion of the Sipunculoids to the Worms. The Diptera are placed by him at the top of the branch, on account of the extreme concentration of their bodies and the versatility of their heads. It is questionable, however, whether this is their true position, notwithstanding these points in their organization, because the typical form of the Insecta proper seems upon the whole to be four-winged, from which the abortion of the posterior pair constitutes a marked deviation; and it would be quite an exceptional circumstance were an abnormal group to constitute the highest of its class, to say nothing of a branch. The division of the body into three groups of segments, and the versatility of the head, obtain to an equal extent in the Hymenoptera. Professor Agassiz's arguments in favour of the supremacy of the Lepidoptera are not yet shown to be fallacious; and though in some particulars their organization may seem to be inferior, in others (*e. g.* antennæ) it is of a grade decidedly superior to that of the Diptera.

The third part is devoted to the embryology of the five branches of the animal kingdom.

Many other details are worthy of notice; and, excepting some obtrusive claims to originality, and some personalities, the book is pleasantly written and well worth reading.

#### MISCELLANEOUS.

*On the Organization of Cryptoprocta ferox.* By MM. A. MILNE-EDWARDS and A. GRANDIDIER.

CRYPTOPROCTA FEROX was completely unknown when in 1833 the English zoologist Bennett received a specimen of it, to which he called the attention of naturalists; but this unique specimen was so young that it was impossible to ascertain its precise zoological affinities, the dental system having not yet acquired its definitive form. Bennett thought the species should be placed in the family Viverridæ, close to the *Paradoxuri*, although he indicated some points of resemblance to the Felidæ.

Blainville obtained a drawing of the skull of this young individual,